Abstract

Mental stress quantification using fuzzy analysis of ECG parameters is presented here. ECG signal is decomposed using the BIOR-3.9 wavelet family up to three levels. The approximates signals are used for computation ECG parameters like energy, entropy, power, standard deviation, mean and covariance. A fuzzy classifier is designed using trimf function as associate membership in fuzzy analysis. The ECG data base is taken from MIT data base web site.

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**Index Terms**

Computer Science

Fuzzy Systems

**Keywords**

ECG BIOR-3.9 wavelet Entropy Energy Power Standard Deviation

Covariance

Fuzzy Logic

Mental Stress